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Amendments to the Claims

Please amend Claims 1, 13, 19 and 25. The Claim Listing below will replace all prior versions of the claims in the application:

Claim Listing

1. (currently amended) A digital cross connect comprising:
plural switching stages, each stage having plural switches receiving plural frames of time multiplexed input data and switching the data in time and space;
a frame counter at each switch synchronized to a frame clock; and
a master switch within the plural switching stages from which the frame clock is propagated to downstream switches and from output ~~stages~~ switches to input ~~stages~~ switches.
2. (original) A digital cross connect as claimed in claim 1 wherein propagation of the frame clock is matched to data distribution between the switches.
3. (original) A digital cross connect as claimed in claim 2 wherein the frame clock is derived from a frame of data.
4. (original) A cross connect as claimed in claim 3 wherein the frame clock is derived from an A1 byte of a SONET frame.
5. (original) A cross connect as claimed in claim 3 wherein each switch selects between an external frame clock input and a frame clock derived from one of plural frames of data.
6. (original) A cross connect as claimed in claim 5 wherein the frame counter of each switch is aligned to a defined offset from the selected frame clock.

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7. (original) A cross connect as claimed in claim 6 wherein a switch selects between one of plural redundant frame clock inputs propagated from the master switch, each with a respective defined offset.
8. (original) A cross connect as claimed in claim 1 wherein a switch frame counter is aligned to a defined offset from the frame clock.
9. (original) A cross connect as claimed in claim 8 wherein a switch comprises multiple frame counters having different alignments.
10. (original) A cross connect as claimed in claim 9 wherein each switch includes two frame counters.
11. (original) A cross connect as claimed in claim 9 wherein a single switch module implements portions of two stages of the cross connect using respective frame counters.
12. (original) A cross connect as claimed in claim 1 wherein the master switch is in a middle stage.
13. (currently amended) A method of providing a digital cross connect comprising:
providing plural switching stages, each stage having plural switches which receive plural frames of time multiplexed input data and which switch the data in time and space;
propagating a frame clock from a master switch within the plural switching stages to downstream switches and from output stages switches to input stages switches; and
synchronizing a frame counter at each switch to the propagated frame clock.
14. (original) A method as claimed in claim 13 wherein propagation of the frame clock is matched to data distribution between the switches.

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15. (original) A method as claimed in claim 14 wherein the frame clock is derived from a frame of data.
16. (original) A method as claimed in claim 15 wherein the frame clock is derived from an A1 byte of a SONET frame.
17. (original) A method as claimed in claim 15 wherein each switch selects between an external frame clock input and a frame clock derived from one of plural frames of data.
18. (original) A method as claimed in claim 17 wherein the frame counter of each switch is aligned to a defined offset from the selected frame clock.
19. (currently amended) A method as claimed in claim ~~17~~ 18 wherein a switch selects between one of plural redundant frame clock inputs propagated from the master switch, each with a respective defined offset.
20. (original) A method as claimed in claim 13 wherein a switch frame counter is aligned to a defined offset from the frame clock.
21. (original) A method as claimed in claim 20 further comprising generating plural frame counters at a switch, each frame counter aligned to a different offset from the frame clock.
22. (original) A method as claimed in claim 21 wherein each switch includes two frame counters.
23. (original) A method as claimed in claim 21 wherein a single switch module implements portions of two stages of the cross connect using respective frame counters.

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24. (original) A method as claimed in claim 13 wherein the master switch is in a middle stage.

25. (currently amended) A digital cross connect comprising:

plural switching stages, each stage having plural switching means for receiving plural frames of the time multiplexed data and switching the data in time and space;

frame counter means at each switch for providing a frame count synchronized to a frame clock; and

master switch means within the plural switching stages for propagating the frame clock to downstream switches and from output ~~stages~~ switches to input ~~stages~~ switches.
